AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (Currently Amended) A radiographic imaging method using an apparatus comprising means for providing a source of radiation and means for detecting the radiation installed on a mobile support capable of movement with respect to means for supporting an object comprising:

driving the mobile support completely along a given movement with respect to the means for supporting the object;

processing a complete sequence of images of a region of the object, acquired by the means for detection during the movement of the mobile support with respect to the means for supporting the object to reconstitute a 3D model of the region; and

driving the mobile support so that it carries out the complete movement repetitively to form a periodically refreshed complete 3D model of the object.

2. (Original) The method according to claim 1 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.

3. (Original) The method according to claim 1 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through a center of the means for detection.

4. (Original) The method according to claim 1 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.

5. (Original) The method according to claim 1 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images

necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

6. (Original) The method according to claim 2 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

7. (Original) The method according to claim 3 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

8. (Original) The method according to claim 4 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

9. (Currently Amended) A radiographic imaging device comprising:

means for providing a source of radiation;

means for detecting the radiation;

the means for providing radiation and the means for detecting radiation disposed on a mobile support capable of moving with respect to means for supporting an object on which the object can be placed;

means for control capable of driving the mobile support in movement with respect to the means for supporting the object;

means for processing capable of reconstituting and presenting a 3D model of an imaged region of the object, starting from a sequence of images acquired of the region by the means for detection during a given movement of the mobile support with respect to the means for supporting the object;

the means for control being programmed to control driving movement of the mobile support so that it carries out the complete movement repetitively;

the means for processing forming a periodically refreshed complete 3D model; and

the means for processing comprising means for continuously memorizing or storing a sequence of 2D images corresponding to a number of images necessary for reconstitution of a 3D model on a sliding window, and means for continuously implementing a method for reconstitution of a 3D model on this sliding window.

10. (Previously Presented) The apparatus according to claim 9 wherein the means for control is programmed to drive the mobile support along a sequence of half-rotations alternately in one direction and in the other direction, around the means for supporting the object.

11. (Previously Presented) The apparatus according to claim 9 wherein the means for control is programmed to drive the mobile support so as to apply a repetitive conical movement of evolution to an axis passing through a focal point of the source and through a center of the means for detecting.

12. (Previously Presented) The apparatus according to claim 9 wherein the means for control is programmed to drive the mobile support along a repetitive continuous rotation movement around the means for supporting the object.

13. (Previously Presented) The apparatus according to claim 12 wherein the mobile support comprises an electrical power supply with a commutator / brush.

14. (Previously Presented) The apparatus according to claim 12 wherein the apparatus comprises means for optically connecting through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.

15. (Previously Presented) The apparatus according to claim 13 wherein the apparatus comprises means for optically connecting through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.

16. (Original) The apparatus according to claim 12 wherein the apparatus comprises means for making a radio frequency link through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.

17. (Original) The apparatus according to claim 13 wherein the apparatus comprises means for making a radio frequency link through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.

18. (Previously Presented) The apparatus according to claim 12 wherein the means for control and/or the means for processing exchange data with the source and/or the means for detection through a brush / commutator.

19. (Previously Presented) The apparatus according to claim 13 wherein the means for control and/or the means for processing exchange data with the source and/or the means for detection through a brush / commutator.

20. (Cancelled)

21. (Original) The apparatus according to claim 18 wherein the means for processing comprise:

means for continuously memorizing or storing a sequence of 2D images corresponding to a number of images necessary for reconstitution of a 3D model on a sliding window; and

means for continuously implementing a method for reconstitution of a 3D model on this sliding window.

22. (Currently Amended) A method to determine a set of functional parameters using a radiography device of the type comprising means for providing a source of radiation, means for recording facing the source, the source and the means for recording being installed on a mobile support capable of moving with respect to means for supporting an object placed between the

source and means for recording, and on which the object with a region of interest to be imaged will be placed, comprising:

moving the support following a given movement with respect to the means for support, repeated during a given time;

acquisition by the means for recording of a complete series of images of the region of interest during movement of the mobile support with respect to the means for support;

reconstitution of a series of complete three-dimensional models of the region of interest, starting from a series of acquired images; and

determination of ~~all~~ functional parameters associated with the region of interest, starting from the series of complete three-dimensional models;

wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

23. (Previously Presented) The method according to claim 22 wherein the determination comprises:

choosing a region of interest at a blood vessel in one of the three-dimensional models;

determining an arterial input function at the chosen region of interest;

deconvoluting a signal with an intensity variable with time using the arterial input function, on each voxel common to three-dimensional models in the series; and

determining a residual impulse function to calculate functional parameters.

24. (Original) The method according to claim 22 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.

25. (Original) The method according to claim 23 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.

26. (Previously Presented) The method according to claim 22 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through the center of the means for detection.

27. (Original) The method according to claim 23 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through the center of the means for detection.

28. (Original) The method according to claim 22 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.

29. (Original) The method according to claim 23 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.

30-31. (Cancelled)

32. (Previously Presented) A radiography device comprising:

means for providing a source of radiation;

means for recording facing the source;

the source and means for recording being placed on a mobile support capable of moving with respect to means for supporting an object disposed between the source and the means for recording on which the object with a region of interest to be imaged will be positioned;

means for control comprising means capable of moving the mobile support following a movement applied with respect to the means for supporting the object; and

means for processing;

wherein the means for control and the means for processing are capable of implementing a method according to claim 22.

33. (Previously Presented) A radiography device comprising:

means for providing a source of radiation;

means for recording facing the source;

the source and means for recording being placed on a mobile support capable of moving with respect to means for supporting an object disposed between the source and the means for recording on which the object with a region of interest to be imaged will be positioned;

means for control comprising means capable of moving the mobile support following a movement applied with respect to the means for supporting the object; and

means for processing;

wherein the means for control and the means for processing are capable of implementing a method according to claim 23.

34. (Previously Presented) The method according to claim 1 wherein the driving the mobile support is performed during an interventional procedure.

35. (Previously Presented) The apparatus according to claim 9 wherein the means for control controls driving movement of the mobile support during an interventional procedure.

36. (New) The method of Claim 2, wherein:

the processing a complete sequence of images to reconstitute a 3D model of the region comprises reconstituting a series of 3D models, one for each half rotation.